

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002414**Date Inspected:** 02-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** N/A**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

The Quality Assurance (QA) Inspector Gregory Bertlesman arrived on site at the Zhenhua Port Machinery Company facility on Changxing island, China to periodically monitor welding and Quality Control functions. While on site the Quality Assurance Inspector observed and/or discovered the following.

Tower Fabrication Facility

The Quality Assurance Inspector observed ZPMC welders fitting up skin plate splice SSD1-SA173 J/K-3. The skin plates are joined by two partial joint penetration welds and a complete joint penetration weld. ZPMC Inspector 07031411 was monitoring the fit operations.

Heat Straightening Operations

The Quality Assurance Inspector observed ZPMC performing heat straightening operations to diaphragm plate P853. The Quality Assurance Inspector observed ZPMC Quality Control measuring the heat with an infra-red temperature indicating device.

89M Tower Mock-up

The Quality Assurance Inspector did not observe any ZPMC personnel working on the 89M Tower Mock-up today.

Tower Skin Plate

The Quality Assurance Inspector observed ZPMC welding operator with welder identification number, 056975 performing in process welding of skin plate complete joint penetration weld ESP1-SA49A/D-27A connection.

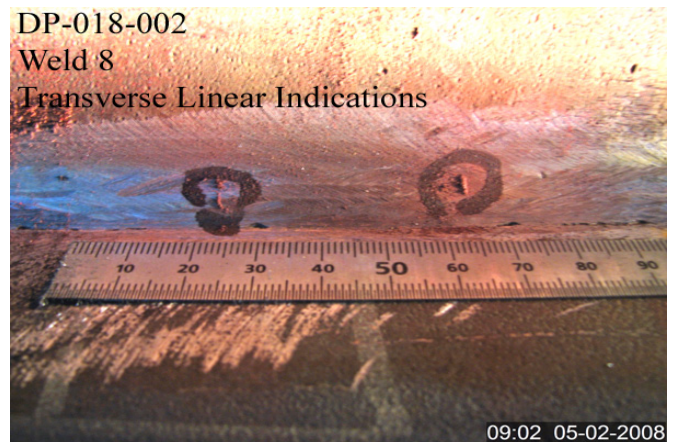
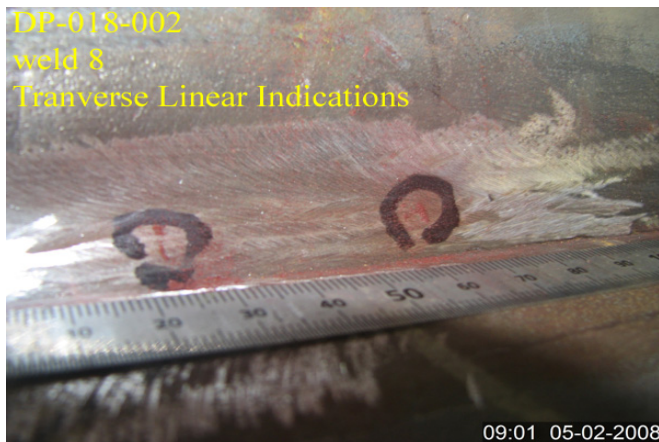
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Quality Control Inspector Zhu Zhong Hai was monitoring the welding. The welder was using the submerge arc welding process to produce the complete joint penetration weld in the flat position. The part was stationary while the welding machine was on tracks to facilitate welding along the length of the part. The Quality Assurance Inspector measured the welding parameters at the welder's station and found the parameters to meet the minimum requirements of welding procedure specification WPS-B-T-2221-B-U3c-5-1. The Quality Assurance Inspector witnessed Quality Control measuring the interpass temperature using a calibrated infra-red temperature measuring device.

Bay 3

The Quality Assurance Inspector was informed by American Bridge/Fluor Representative Warren Buehler that ZPMC had identified four transverse cracks on weld 8 of deck panel DP-018-002. The Quality Assurance Inspector performed magnetic particle verification to the areas and observed the transverse linear indications identified by ZPMC Quality Control. Below are two digital photographs illustrating the linear indications.



Summary of Conversations:

As stated in the contents of the above report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Pat Lowry, (916) 227-5719, who represents the Office of Structural Materials for your project.

Inspected By:	Bertlesman,Greg	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
